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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,230

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Masaaki Ino

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EXAMINER

KARPINSKI, LUKE E

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

03/24/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,230	<b>Applicant(s)</b> INO ET AL.	
	<b>Examiner</b> LUKE KARPINSKI	<b>Art Unit</b> 1616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-24 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 11, 12, 14, 16, 21, and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/18/2011 has been entered.

### ***Claims***

Claims 1-4 are canceled.

Claims 23 and 24 are new.

Claims 5-24 are pending and under consideration in this action.

### ***Rejections***

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

### ***Claim Objections***

Claims 7 and 8 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 7 and 8 recite that said pheromones are natural or synthetic, however, claim 5 recites an insect derived or synthesized pheromone, which is a natural or synthetic pheromone.

Claims 11, 12, 14, 16, 21, and 22 are objected to for being dependant on an objected to claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Applicant Claims
2. Determining the scope and contents of the prior art.
3. Ascertaining the differences between the prior art and the claims at issue, and resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**1. Claims 5-24 are rejected under 35 U.S.C. 103(a)** as being unpatentable over USPN 5,415,131 to Dodman in view of GB 2,067,406 to DalMoro et al. and USPN 6,444,742 to Rong et al.

### ***Applicant Claims***

Applicant claims a formulation consisting of an insect pheromone and a substrate for containing said pheromone consisting of a calcined crystalline mineral prepared by the steps consisting essentially of firing said crystalline mineral at 500-700 degrees for 5-120 minutes.

Applicant further claims specific crystalline minerals, said pheromone as natural or synthetic, percentages of said pheromones, a firing time of 30-60 minutes, said formulation consisting essentially of a pheromone and a substrate consisting of a calcined crystalline material prepared by the steps consisting of firing said crystalline

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material at 500-700 degrees for 5-120 minutes, and the addition of an antioxidant, UV absorber, or organic solvent..

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

Dodman teaches compositions for attracting an animal (abstract) consisting of a pheromone and montmorillonite or attapulgite, wherein said clays may have been calcined (example 3), as pertaining to claims 5-8, 13-16, 23, and 24.

Dodman further teaches 0.1-50,000 ppm (example 3), which reads on 0.0001-5% (col. 7, lines 6-20), as pertaining to claims 9-12.

Dodman further teach that pheromone communication with animals is known and is especially prevalent in insects (col. 5, lines 60-67), as pertaining to claims 5, 23, and 24.

***Ascertainment of the Difference between Scope the Prior Art and the Claims (MPEP §2141.012)***

Dodman does not teach formulations comprising insect pheromones as claimed in claims 5, 23, and 24. This deficiency in Dodman is cured by DalMoro et al. DalMoro et al. teach insect control with formulations comprising pheromones and inert carriers (cover page), wherein said carrier may be attapulgite (page 2, line 54).

Further, Dodman does not teach calcination parameters, including times and temperatures, as claimed in claims 5-24. This deficiency is cured by Rong et al. Rong et al. teach methods for calcining sepiolite and palygorskite consisting of heating to 100-850 degrees for 30 minutes to 10 hours (col. 2, summary).

***Finding of Prima Facie Obviousness Rational and Motivation***  
***(MPEP §2142-2143)***

Regarding the limitation of using an insect pheromone, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to produce the pheromone compositions of Dodman with an insect pheromone as taught by DalMoro et al. in order to produce the invention of instant claims 5, 23, and 24.

One of ordinary skill in the art would have been motivated to do this because Dodman teaches compositions consisting of pheromone and an inert carrier and that animals as well as insects may be controlled with said pheromones and DalMoro et al. teach compositions comprising the same carriers and insect pheromones. Therefore it would have been obvious to utilize the insect pheromone of DalMoro et al., in the formulations of Dodman in order to produce a formulation consisting of only a pheromone and carrier and to use an insect pheromone to control insects.

Regarding the calcination limitations, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to produce the formulations of combined Dodman and DalMoro et al. with said clay carriers calcined at 100-850 degrees for 30 minutes as taught by Rong et al. in order to produce the invention of instant claims 5, 23, and 24.

One of ordinary skill in the art would have been motivated to do this because Dodman teaches using calcined clays and Rong et al. teach known times and temperatures for calcining said clays. Therefore it would have been obvious to utilize

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the calcination steps of Rong et al., with the clays of Dodman in order to use known calcination methods for said clays.

From the teachings of the reference, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Claims 5-24 are rejected.

No claims are allowed.

### ***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUKE KARPINSKI whose telephone number is (571)270-3501. The examiner can normally be reached on Monday Friday 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEK

/Mina Haghighatian/  
Primary Examiner, Art Unit 1616